STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 3, 2007

VIA ELECTRONIC MAIL

Meg Gottstein
Administrative Law Judge
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: **Rulemaking (R.) 06-04-010**

Dear Judge Gottstein:

Enclosed is the Testimony of the Division of Ratepayer Advocates on the appropriate shared savings rate for a Risk/Return Incentive Mechanism for Energy Efficiency and Testimony of Terry L. Murray on behalf of the Division of Ratepayer Advocates.

Sincerely,

/s/ DIANA L. LEE

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Encl.

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cc: Commissioner Grueneich
Service list in R.06-04-010

Docket:	:	R.06-04-010
Exhibit Number	:	
Commissioner	:	Dian Grueneich
Admin. Law Judge	:	Meg Gottstein
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DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

TESTIMONY OF THE DIVISION OF RATEPAYER ADVOCATES ON THE APPROPRIATE SHARED SAVINGS RATE FOR A RISK/RETURN INCENTIVE MECHANISM FOR ENERGY EFFICIENCY

R.06-04-010

San Francisco, California
May 3, 2007

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I. Executive Summary

The Commission began considering issues related to the development of an incentive mechanism for energy efficiency programs shortly after the opening of Rulemaking (R.) 06-04-010, the Commission's energy efficiency docket. Utilities, Commission staff and consultants participated in workshops during 2006, and parties submitted comments during 2006 and 2007. On March 26, 2007, after considering comments on whether evidentiary hearings were necessary, Commissioner Grueneich issued an Assigned Commissioner Ruling (ACR) that concluded that evidentiary hearings were necessary to determine the relevant benchmark for performance incentives for energy efficiency (EE) programs. In particular, the ACR found that hearings were necessary to explore whether the relevant benchmark for establishing the level of potential earnings at or near 100% of savings goal achievement should be foregone earnings from supply-side investments ("supply side comparability") or some other rate. In the event that the Commission chose supply-side comparability as a benchmark for establishing the shared-savings, the ACR requested evidence related to the appropriate methodology for calculating foregone earnings from supply-side investments, including whether the return-on-equity on supply-side investments should be adjusted to account for the potential earnings from alternative use of the funds.[1]

DRA has maintained throughout this proceeding that the best basis for EE incentives is the one that motivates program administrators to meet or exceed their goals at the lowest cost to ratepayers. In the proper regulatory context, incentives based on DRA's Managerial Bonus model should provide the required motivation and save ratepayers over $350 million[2] compared to the proposals of Pacific Gas and Electric (PG&E), San Diego Gas & Electric (SDG&E), Southern California Edison

[1] March 26 ACR, pp. 2-3.

[2] Savings relative to DRA proposal from revised Table 8B for each IOU, submitted March 15, 2007: PG&E $481 million; SCE $465 million. Sempra's relative savings, $385 million, from April 20, 2007 submittal.

(SCE) and Southern California Gas Company (SCG).[3] The money saved could be used fund to Emerging Technology programs for 35 years at current funding levels,[4] or to double the size of demand response programs,[5] or it could be retained by ratepayers.

In the following testimony, DRA provides evidence in support of the Managerial Bonus model, and contradicting the need for supply side equivalence:

- Incentives based on the Managerial Bonus are large enough to pay bonuses **higher** than the **IOUS actually pay to managers**, to **every person** assigned to IOU EE programs for 2006-2008. DRA is not recommending that the Commission require that utilities pay energy efficiency incentives to employees, but this information demonstrates that the Managerial Bonus model produces results comparable to existing incentive programs, and should therefore be adequate to motivate the utilities to produce optimum energy efficiency results. (Section II)
- Incentives based on the Managerial Bonus model are comparable to incentive rates currently offered in well-established EE programs in other sates. (Section II)
- Incentives based on Supply Side Equivalence are fundamentally flawed, particularly given EAP II and AB 32, (Section III)

DRA recommends that the Commission adopt EE incentives based upon the Managerial Bonus model, but does **not** recommend how the utilities allocate the earnings between shareholders and EE program staff.

Section II below describes DRA's Managerial Bonus model and explains why it should motivate utilities to run energy efficiency programs effectively. All testimony is sponsored by Thomas Roberts, whose qualifications are appended at

[3] DRA's testimony refers collectively to PG&E, SDG&E, SCE and SCG as the utilities or the IOUs (investor-owned utilities).

[4] ET Program funding $29.5 million for 2006-2008, from utility December 2006 Monthly Reports, http://eega.cpuc.ca.gov.

[5] Demand Response Program funding for 2006-2008 is $262 million. D.06-03-024, p. 2.

Attachment 5. Section III explains policy reasons why supply side equivalence should be rejected as a benchmark for EE incentives. Section IV discusses with PG&E's Supply Side Equivalence Model (SSE) if it is used for future share holder funded EE programs.

II. DRA's Managerial Bonus model strikes the best balance between motivating IOUs in the short-term, and building EE programs in the long-term.

The benchmark for DRA's incentive proposal is the bonus rate managers in utilities and comparable organizations would earn for meeting or exceeding difficult goals. This Managerial Bonus model produces incentives comparable to those awarded in EE programs in the United States and results in substantial earnings for the utilities: $81 million[6] if the stretch goals established in D.04-09-060 are met, and up to $166 million in incentives if they are exceeded.

Under DRA's proposal, ratepayers will benefit in the short term when program administrators meet or exceed savings goals so that investment in more expensive supply side alternatives is either delayed or avoided. In the longer term, DRA's proposal frees hundreds of millions of ratepayer dollars compared to alternative proposals. These funds could be used in other ways to increase energy efficiency. For example the funds could be used to accelerate investment in programs like the Public Interest Energy Research Program (PIER),[7] currently funded at $62.5 million a year[8] and Emerging Technology (ET), both of which ensure nascent EE technologies reach maturity in time to supplant current EE measures.

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[6] From Table 2, DRA comments dated March 26, 2007 in this proceeding, based upon 3% of net benefits.

[7] The California Energy Commission's Public Interest Energy Research (PIER) Program supports energy research, development and demonstration (RD&D) projects that will help improve the quality of life in California by bringing environmentally safe, affordable and reliable energy services and products to the marketplace.

[8] California Independent PIER Review Panel Final Report, June 2005, ISBN 1-930117-32-9, p. 3.

A. Factual Basis for DRA Incentive Rate

DRA's model relies on two assumptions to obtain the basic incentive level at 100% of goals: labor costs as a percentage of EE program budget, and a salary-based bonus rate that should motivate superior performance. DRA's original analysis indicated that incentives in the range of $15 million to $90 million should provide the required motivation.[9] DRA ultimately selected an incentive rate of 3% net benefits, or $81 million, based upon the management fees charged by mutual and hedge fund managers, who are compensated based upon their ability to successfully manage other people's money. This analysis has been refined to include data from 2006-2008 budgets, 2006 actual program costs, and additional data on managerial compensation.

1. Salary Basis

DRA obtained budgeted salary data for the IOU's 2006-2008 three-year EE program cycle

Figure 1 – 2006-2008 EE Program Budget Data

	2006-08 Budget $k [10]	Budgeted Salary $k [11]	% Salary to Total Budget
PGE	$867,400	$83,228	9.6%
SCE	$674,831	$79,604	11.8%
SDGE	$257,540	$30,274	11.8%
SCG	$168,920	$39,347	23.3%

[9] September 8, 2006 DRA Comments, p. 7.

[10] From D.05-09-043 Attachment 4, not including EM&V.

[11] From responses to DRA data requests dated April 2 and April 14, 2007.

Actual salary expenses for 2006 were also obtained:

Figure 2 – 2006 EE Program Actual Budget Data

	2006 Total Expenditures $k[12]	2006 Salary expense costs $k[13]	% Salary to Total Expenditures
PGE	$142,232	$25,060	17.6%
SCE	$120,774	$16,878	14.0%
SDGE	$33,983	$7,095	20.9%
SCG	$19,729	$8,157	41.3%

The 2006 program started late, which contributed to a higher ratio of salary to total expenses, and none of the utilities stated that 2006 salary figures more accurately represent the ratio which will be realized for the entire 2006-2008 program cycle.[14] Given the total program budget of $1,967 million,[15] and budgeted 2006-2008 salary figures as a percent of expenditures, the salary pool eligible for EE incentives ranges from $189-$458 million, depending on which utility's salary ratio is used. The average value, weighted by budget, is 11.8% and yields a salary pool of $232 million. This is an estimation of the IOU expenses for labor costs associated with the 2006-

[12] From IOU 2006 4th quarter reports.

[13] From responses to DRA data requests dated April 14, 2007.

[14] "SoCalGas believes that the 23.3% is a better approximation to use for labor expenses to total EE expenses for 2006-2008." "SDG&E believes that the 11.8% is a better approximation to use for labor expenses to total EE expenses for 2006-2008," responses to DRA data request dated April 21, 2007.

> "SCE cannot forecast whether the final % of labor expenditures as a percent of total portfolio expenditures will be closer to 11.8% or 14.0% due to the multitude of factors," SCE response to DRA data request dated April 21, 2007."
>
> "Over the three-year 2006-2008 program cycle, 9.6% best approximates the actual ratio of the salary expenses to total EE expenses." PG&E response to DRA data request dated April 21, 2007."

[15] D.05-09-043, Attachment 4, excluding EM&V.

2008 EE program. Actual salary costs will only be available after the entire program cycle has been completed and subjected to CPUC audit.

2. Bonus level as a percentage of Utility EE Salaries and Wages

DRA's proposal would provide the utilities with $81 million for the three year program, if they reach 100% of savings goals. Dividing this incentive by the salary pool calculated above yields bonuses as a percentage of salary ranging from 17.7% to 42.8%, with a weighted average of 34.9%. In other words, if all the IOUs reached 100% savings goals AND the incentive earnings were returned to EE program staff, **each staff member** would receive a **bonus of approximately 35% of their base salary.**[16] DRA does not propose how the IOUs should distribute the EE incentives except as noted in Section C below, but this calculated bonus level can be compared with other compensation data to determine its ability to incent superior performance.

B. DRA's Managerial Bonus Model produces incentive rates that are higher than those of comparable incentives program.

DRA believes the best indications of the required incentive levels are provided by

- The incentives plans **offered** to IOU managers to achieve corporate goals,
- The incentives **actually paid** to these managers to achieve corporate goals,
- The incentives **actually paid** to managers in comparable utility and non-utility industrial companies to achieve corporate goals**.**

Through the data request process, DRA was able to obtain answers to all these questions from the utilities. The following discussions assume that all incentives are shared equally among IOU EE program staff, in proportion to base wages or salaries.

[16] This assumes the salary data provided by the IOUs is for base salary and wages only. If these figures include incentives from existing incentive programs, the percentages above would be higher.

As noted previously, DRA does not recommend how incentives should be distributed within the IOUs. If the utilities distributed EE incentives in the same way as they distribute existing employee incentives, then the result would be higher incentive rates for top managers than the weighted average described below, and lower incentive rates for non-managers.

1. Comparison to Current Utility Incentive programs

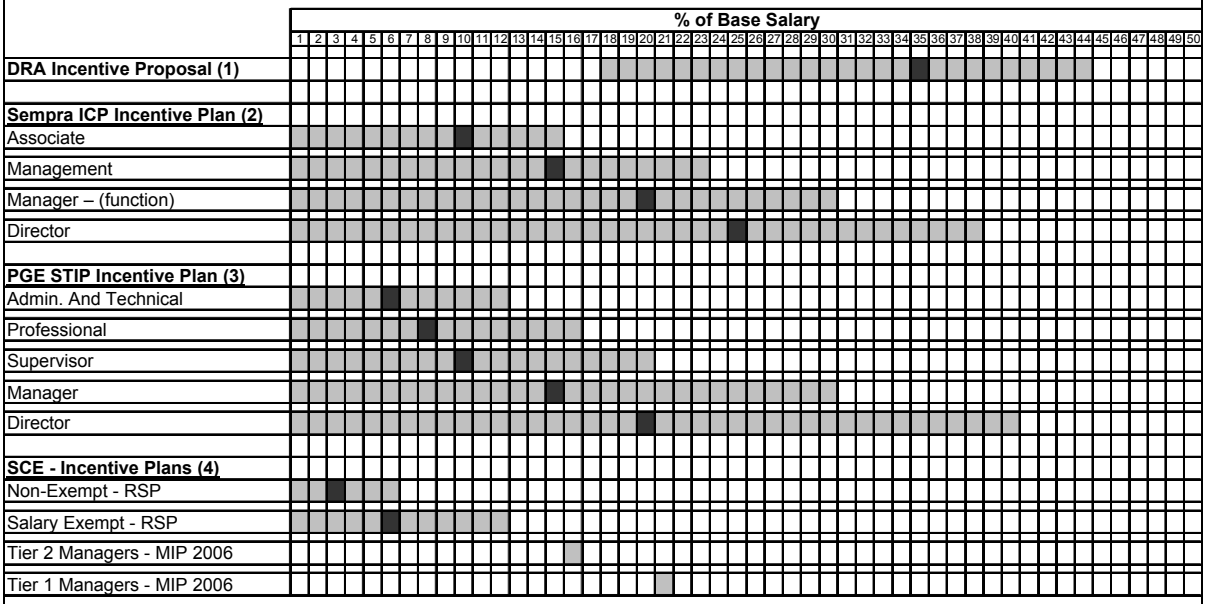
California's regulated utilities all offer performance-based incentives as a component of employee compensation. Within each utility, multiple incentive plans cover the full range of employees from field technicians and clerks, to corporate officers. Short-term cash incentives, which are the most uniform and widely applicable, provide annual bonuses based upon performance towards goals at the individual, business unit, and corporate level. In general, financial and operational goals are established utility wide in advance of each fiscal year. These bonus levels vary from zero to a maximum established for each employment classification. The level of maximum bonus increases with managerial level; at the executive level, short-term cash incentives approach base salaries. Details of each utility's short-term incentive program are included in Attachment 1.

Executives and selected managers may also qualify for long-term incentives, such as stock options. These incentives were not included in DRA's analysis because they are only available to a tiny fraction of managers and because they typically entail constraints, such a stock holding requirements, which will not apply to EE incentives. This issue will be discussed in more detail in the following section.

2. Discussion

The following chart illustrates DRA's proposed incentive rate relative to the IOU incentive plans.

Figure 3
IOU Incentive Rates, Current Short-term Incentive Plans



(1) DRA data shown as a range of potential incentive rates at 100% of goals. Refer to text for details.
(2) Sempra's Incentive Compensation Plan (ICP) applies to SoCalGas and SDG&E. Target incentive in black, incentives for a range of performance in grey.
(3) PG&E Short Term Inceptive Program (STIP): Target incentive in black, incentives for a range of performance in grey.
(4) SCE Results Sharing Program (RSP): Target incentive in black, incentives for a range of performance in grey.
SCE Management Incentive Program (MIP): actual 2006 incentive in grey.

It is important to note that the range of incentives shown in this chart is different for DRA and the IOUs. For DRA, a range of incentives is shown that illustrates the derived incentive rate at **100% of goals** as a function of the ratio of salary expenses to total expenses, as described above. The lower end of this incentive range (17.7%) is based on SCG's 23.3% figure and the high end (42.8%) on PG&E's 9.6% figure. An average weighted by the 2006-2008 budgets for each IOU is shown as the center point of this range.

For the IOUs, the range of incentives shown illustrates the how incentives can vary **over the full range of performance**. For Sempra and PG&E, the center point indicates the target incentive level established by each incentive plan. SCE did not provide target levels for its Managerial Incentive Plan (MIP), but it did provide the actual 2006 short-term incentives paid through MIP.

The existing utility short-term incentive programs provide direct evidence of the incentive levels **utility managers** require to meet their corporate performance goals. The incentive levels proposed by DRA exceed the maximum available for all non-managers by a significant margin. DRA's average incentive rate also exceeds the "target" level for all levels of management classifications for which data was provided,[17] as well as the maximum available to all but director level managers if the corporation as a whole has high earnings. Incentive rates under these plans are based in large part on corporate financial performance and operating goals so director level managers could earn more than DRA's incentive rate when corporate earnings are exceptional. The upper range of incentives rates requires high performance in business units which are outside of a specific director's control.

Based upon the potential short-term incentives available to all physical, clerical, and technical IOU employees, and a vast majority of managers, DRA's proposal offers higher incentives and should provide motivation to stretch toward achieving or exceeding EE savings goals.

3. Comparison to Recent IOU Incentive Payments

California's IOUs perform routine compensation surveys to ensure their employees are paid fairly, yet not excessively. These reports, compiled by either Hewitt Associates or Towers Perrin, are included as part of each IOU's GRC filing. They contain the base pay, benefits, and cash incentives for the specific utility and comparison figures for the "market.[18] Data is compiled for every job title in the utility, and aggregated into the following job classifications:

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[17] Target incentive rates for long-term incentives and executives were not provided in response to DRA's data requests. Refer to Attachment 1.

[18] "Market" data is obtained from a group of comparable companies found in existing databases which reflect the labor market for each job category.

Hewitt reports for SCG and SDG&E also include long-term incentives.

- Physical/Technical,
- Clerical,
- Professional/Technical,
- Manager/Supervisor, and
- Executive.

Total number of employees in each classification is also provided. A summary of data from the most current reports is included in Attachment 1.

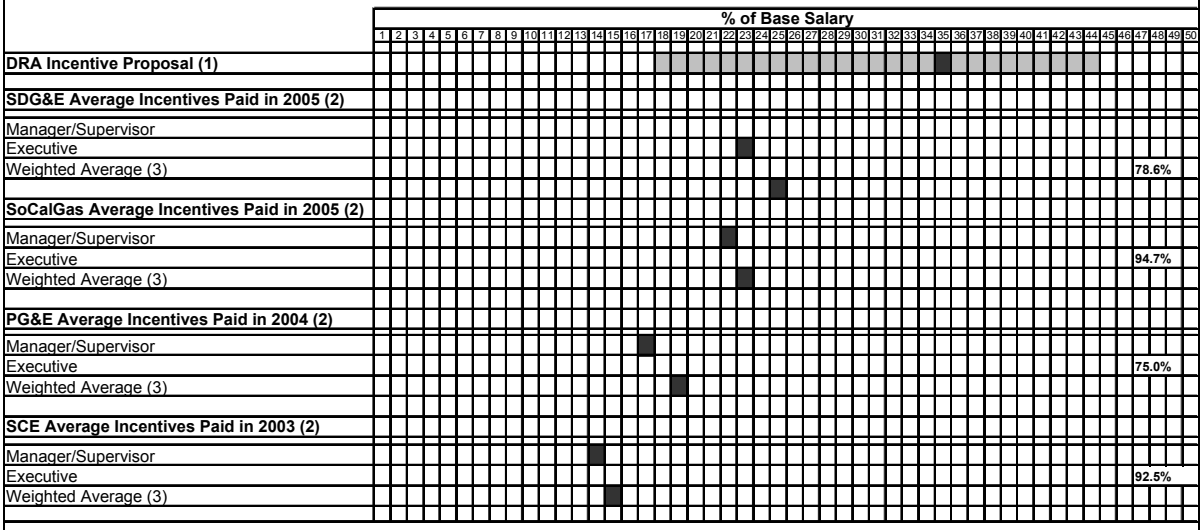
DRA compared the total cash compensation to base salaries[19] for each employee classification[20] to determine the average bonus rates that were actually paid in the survey years.[21] DRA's analysis also includes a weighted average of the bonuses paid to managers and executives for purposes of comparison, despite reservations mentioned in the following discussion. The calculations show that the **incentive rates proposed by DRA are higher than those realized by a weighted average of all managers, including executives,** as illustrated below**:**

[19] Benefits were not included since they are a fixed portion of employee compensation and not performance-based.

[20] Long-term incentives were not included because in order to encourage employee retention their receipt is conditioned on constraints that do not exist with short-term incentives. No such constraints apply to the EE program. In any event, long-term incentive data was not included in compensation surveys for SCE or PGE.

[21] The surveys were performed on data from the following years: SCE: 2003; PGE: 2004; SCG and SDG&E: 2005.

Figure 4
IOU Incentive Rates, Actual Cash Incentives from Compensation Surveys



(1) DRA data shown as a range of potential incentive rates at 100% of goals. Refer to text for details.
(2) IOU data from Total Compensation Surveys using data from year indicated.
(3) Average of Manager/supervisor and Executive rates shown, weighted by number of employees in each class.

4. Discussion

DRA's 35% average incentive rate can be compared to the data in Attachment 1 to show that **DRA's rate is greater than the average**:

- Bonuses paid to employees in Manager/Supervisor category for all IOUs,
- Weighted average of bonuses paid to employees in Manager/Supervisor and executive category for all IOUs,
- Bonus paid to Managers/Supervisors in comparable "market" companies.[22]

DRA's incentive rate is **lower** the average bonuses paid in the Executive job category for both the IOUs and, comparable companies. DRA believes than an EE incentive at the executive level would be excessive in this application for the following reasons:

[22] A weighted average was not possible for market data since numbers of jobs within each job classification were not available.

- Executive compensation in the US is considered excessive by many experts. The Wall Street Journal began a recent 10 page compensation survey by saying "Outrage over executive compensation has hit a boiling point."[23] The editor subsequently states that "Shareholder wrath ebbs and flows, but is flowing stronger than it ever has right now. New disclosure rules give shareholders a better view of the huge sums that top executives are raking in."[24]
- Compensation for executives is highly customized based on individual responsibilities and goals.
- Compensation for executives includes a large percentage of variable/performance based incentives. Bonuses at this level are more than a bonus in the traditional sense: they are an expected and required source of income which is used to attract executive talent.
- Executives form a tiny fraction of the employees in any company. No company could afford to pay a program-wide bonus at executive incentive levels without radically lowering their base salary or guaranteed wages.

5. Comparison to comparable Industry Incentives

The data in Attachment 1 also shows that DRA's incentive rates are substantially higher than the "market" rates for all labor classifications other than Executive, including all managers. A weighted average was not possible for this data since the number of employees in each category was not available.

6. Will DRA's Proposal Motivate Utilities to Meet EE Savings Goals?

These analyses demonstrate that DRA's basis for incentives is sound. Using data supplied by the IOUs, about the short-term programs they use to incent their employees to excel, DRA has demonstrated that its proposed incentive rate is:

[23] WSJ, April 9, 2007, Joann Lublin, Page R1.

[24] Ibid, Lawrence Rout's Editor's Note, page R2.

1) Higher than the target levels for IOU incentive plans,
2) Higher than the maximum available to all mangers, except for Directors in years where the utility has exceptional performance,
3) Higher than short-term incentives actually paid to managers at the IOUs,
4) Higher than short-term incentives actually paid to managers at comparable companies,
5) Higher than a weighted average of short-term incentives actually paid to IOU management, including executives.

These results indicate that the IOUs should be motivated towards achieving or exceeding the Commission's EE goals using a Managerial Bonus model. **If** DRA's proposed incentives were distributed to the EE program staff, they could be distributed at rates comparable to the existing utility incentive plans in which clerical staff earns less than professional staff, and managers earn the highest rates. Each IOU could provide executive-level incentives to a few top managers, return the incentives to the holding company, or distribute them among the staff members who actually sacrificed to meet the stretch goals.

C. Comparison to EE Incentive levels in Other States

DRA has previously presented data on incentive programs in other states based upon an American Council for an Energy-Efficient Economy (ACEEE) survey,[25] which indicated that nine other states offered EE incentives. Conversations with the report's authors, and others in the field, indicate that this report is the most current to date, and that there are no new EE incentive programs. DRA contacted the regulatory agency in each of these states to obtain the latest program data.[26] Detailed data for these programs and the proposals currently under consideration in California are presented in Attachment 2 and summarized here:

[25] American Council for an Energy-Efficient Economy (ACEEE) Report U061, October 2006.

[26] Except New Hampshire, which could not be reached for an update.

Figure 5 - EE Incentives in United States as of April 2007

	Incentive at 100% of goals as % of **Program Net Benefits**	Incentive at 100% of goals as % of **Program Costs**	Incentive Cap as % of Program Costs	Updated Annual Budget ($1,000)	Annual Incentive Payment at 100% of goals($1000)	Maximum Annual Payment ($1000)
Minnesota	1.0%	3.3%	30.0%	$99,133	$3,271	$29,740
Rhode Island	NA	4.4%	5.3%	$27,500	$1,210	$1,458
Connecticut	NA	5.0%	8.0%	$58,098	$2,905	$4,648
Vermont	NA	5.0%	5.8%	$22,167	$1,108	$1,293
New Hampshire	NA	8.0%	12.0%	$15,120	$1,210	$1,814
Massachusetts	NA	8.25%	9.0%	$125,000	$10,313	$11,250
Wisconsin	NA	12.7%	NA	$16,300	$2,077	NA
Nevada	NA	15.3%	NA	$8,473	$1,292	NA
Arizona	10%	NA	10.0%	$16,000	NA	$1,600
California Proposals Before the Commission						
TURN	2%	2.7%	5%	$666,667	$17,927	$33,333
CEC	2%	2.7%	5%	$666,667	$17,927	$33,333
DRA	3%	4.0%	8%	$666,667	$26,890	$53,333
NRDC	12%	15.6%	30%	$666,667	$103,760	$200,000
SEMPRA	15%	21.4%	44%	$666,667	$142,650	$292,667
SCE	20%	27.3%	36%	$666,667	$181,933	$238,000
PGE	20%	28.1%	35%	$666,667	$187,267	$236,333

This demonstrates that

1) DRA's proposed incentive is at the low end of the spectrum, but is not the lowest incentive rate.
2) Two states have rates higher than 10%. However, the programs in those states involve circumstances, discussed below, that limit direct comparison to other programs, including California's.
3) The incentives proposed by California IOUs exceed every existing incentive program by a substantial margin.
4) California's program budget is five times larger than the next largest program, and ten times the size of any other program. This should impact the incentive rate as discussed below.

While the incentive rate shown for Wisconsin [12.74%] is one of the highest, this rate should not be compared directly to data from other states for two important reasons. First, this rate applies to a single $16 million program that is separate from statewide EE programs, currently budgeted at $86 million. The other EE programs do not provide incentives to the utilities. More importantly this program, the "Shared Savings" Program, is an on-bill financing program which subjects the administering

utility to additional risk[27] through the five-year contract period. The utility is compensated for this risk through the rate-setting process, where it is allowed to earn a return at its weighted cost of capital for investment in this specific EE program.

Nevada offers the largest incentives for existing programs, based upon providing a return at the utilities' return on equity (ROE) plus 5% for EE expenditures. This program is trying to increase EE penetration rapidly in a state with little existing EE savings.[28] Nevada's program budget is small, $8.4 million per year, and the percentage of revenues it spends on EE programs is 0.3%, as shown in Table 10, Attachment 2. In contrast, California's EE budget the same year was $380 million, or 1.3% of revenues,[29] and with the EE budget increased for the 2006-2008 program, California's current figure exceeds 2.2%.[30] Whether Nevada's EE program maintains existing incentive levels when it approaches the size and maturity of California and other states' programs remains to be seen, but comparing its incentive program to California's is an apples to oranges comparison.

Minnesota's incentive structure has a high cap of 30% of program costs, but this occurs at 150% of goals. The incentive rate structure increases exponentially such that double-digit incentives are only realized at truly exceptional performance relative to goals.

Arizona's incentive program is new for 2006 and has not yet resulted in incentive payments. This is not a proven incentive program.

While DRA's proposed incentive rate is at the low end of incentive currently offered in other states, it is closer to the average incentive than any other proposal in

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[27] The utility is reimbursed by ratepayers for any defaults, so default risk is minimal. However, the utility is tying up capital for five years and this incentive provides compensation for the lost liquidity and interest rate risk.

[28] Electricity savings as a percentage of electricity sales for Nevada are .20% compared to 7.80% for California, 2006 ACEEE Summer Study on Energy Efficiency in Buildings, Table 10 in Attachment 2.

[29] Ibid.

[30] Based on total operating revenues of $29.7 Billion from utility 2006 Annual Reports.

this proceeding. Additionally, the size of California's EE programs allows for economies of scale that should warrant a lower incentive rate. Evaluation and potential studies, rebate application processing, statewide marketing, and customer service are all components of California's EE program that should operate more efficiently than smaller programs in other states[31] and make it easier to achieve savings. A program as large as California's should require lower incentive rates to account for these economies of scale.

D. Distribution of Incentive Earnings

While DRA's model is called the "Managerial Bonus Model," DRA does not attempt to dictate how the utilities should allocate these performance incentives between their EE staff and shareholders. This decision should be made by the utilities, ideally with input from the PAG and PRG members with an emphasis on how distribution can best motivate the attainment of savings goals. DRA recommends that if the IOUs intend to share any portion of EE incentives with EE program staff, they announce this intention as soon as possible, so that the motivating influence of incentives can begin to take effect.

DRA also recommends however that earning from this compensation mechanism should be shared with program partners and third-party implementers in proportion to their contribution to portfolio goals. The Commission dictated that 20% of the programs be administered by third-party providers, and the same portion of incentives should be available to them.

[31] The Commission pointed out in D.05-01-055, that "there will certainly be economies of scale" regarding the administration staff required to manage California's programs in comparison to Oregon's, which is an order of magnitude smaller. D.05-01-055, p. 74.

III. The application of SSEF to DSM programs is conceptually flawed and should be rejected as the benchmark of EE Incentives

A. EE programs are a fact of life – they will displace increasing amounts of traditional supply side investment.

EAP II establishes cost effective EE as "the resource of first choice for meeting California's Energy needs."[32] Beyond the economic advantages of costing less than supply options and providing well-paying jobs, EE reduces air pollution (including greenhouses gases), and reduces dependence on imported fossil fuels. Passage of AB 32 and regulations resulting from Rulemaking (R.) 06-04-009, the Commission's greenhouse gas proceeding, make it likely that energy efficiency will maintain its standing in the loading order, even after the easy savings have been depleted. Until carbon sequestration is proved to be viable, it is likely that demand for fossil fueled combined cycle gas turbines (CCGTs) and combustion turbines (CT's) plants will be slowed relative to pre-AB 32 levels. This current reality should influence the determination of EE incentive levels.

Supply Side Equivalence (SSE) assumes the IOUs have an option of investing in SS resources rather than EE programs. Given current legislation and popular interest in reducing the impact of greenhouse gasses, this is a wholly unrealistic assumption. **The option of building power plants as a substitute for energy efficiency simply does not exist!** The only option to consider is whether IOUs run EE programs, or someone else does.

By insisting that they should be compensated for energy efficiency at a rate that is equivalent to the amount they would have earned from building new power plants, IOUs are fighting to maintain a business model that is familiar to them. They are seeking subsidies to maintain this model rather than adapting to California's progressive and evolving energy policy. This is unfortunate, since there will be ample

[32] EAP II, September 21, 2005, Page 3.

opportunities for investments that transform California's energy supply systems to meet the needs of a carbon-constrained world.

B. IOUs have alternate sources of investment opportunities on which to earn ROE, and ratepayer funded EE programs do not limit their ability to earn revenues on these projects.

Since 2000, California's IOU annual capital expenditures have increased from $3.4 billion to $6.8 billion.[33] Even if EE resource programs are one day able to match or exceed all demand growth, new supply side resources will be required to replace aging equipment. In addition, new investments will be required to account for changing technology and policy including:

- Wind farms, central solar plants, and other renewable resources required by the renewable portfolio standard (RPS), which requires that California's energy needs be met by an increasing amount of renewable resources,
- Transmission extensions to grid-scale renewable energy projects, which must be sited based upon the resource location rather than demand location,
- Energy storage systems to stabilize the output of intermittent supply side resources,
- Transmission and Distribution (T&D) projects to reach new housing and commercial developments,
- Grid upgrades to accommodated increasing amounts of distributed generation (DG), as well as vehicle-to-grid technology;
- Advanced Metering Infrastructure (AMI)

This final opportunity highlights the scope of investments that can be stimulated by innovation and the application of new technologies: PG&E and

[33] Capital expenditures from Sempra, Edison International, and PG&E Corporation annual reports, Statements of Consolidated Cash Flows. Data for Pacific Gas and Electric Company used for 2000 and 2001.

SDG&E will spend $1.61 billion[34] and $572 million,[35] respectively, to deploy AMI in their service territories.

Shareholders in holding companies such Sempra Energy also have non-regulated investment opportunities. The formation of holding companies and elimination of Public Utilities Holding Company Act (PUHCA) gives utilities greater flexibility to invest their capital in other ventures, so to the extent that they invest less in generation in California, they can invest elsewhere and get comparable, if not higher profits. According to Sempra's 2006 annual report, only 57% of its consolidated revenues are generated by SDG&E and SCG.[36]

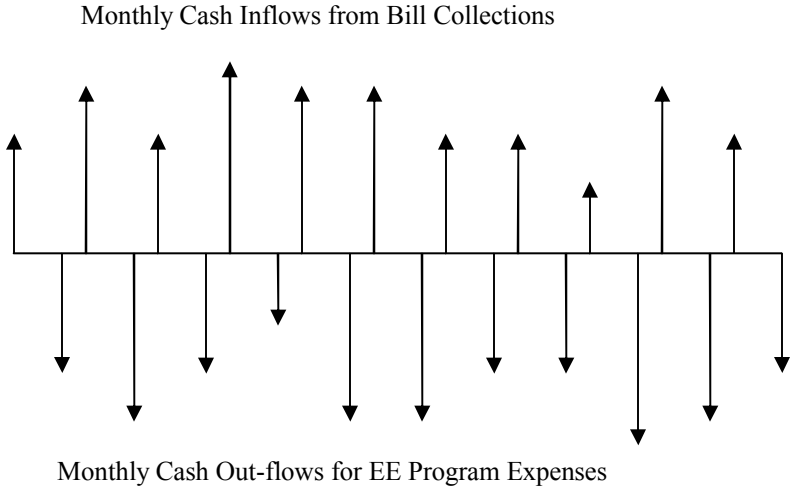
EE programs funded by ratepayers will not reduce IOU ability to raise funding for new capital projects, unless the EE programs are managed so poorly that penalties are levied in lieu incentives. Program funding under the current program administration structure is collected every month for ratepayers, roughly in phase with cash outflows. From the view of utility managers, the cash flow stream for ratepayer funded programs is:

[34] D.06-07-027, p. 3.

[35] D.07-04-043, p. 2.

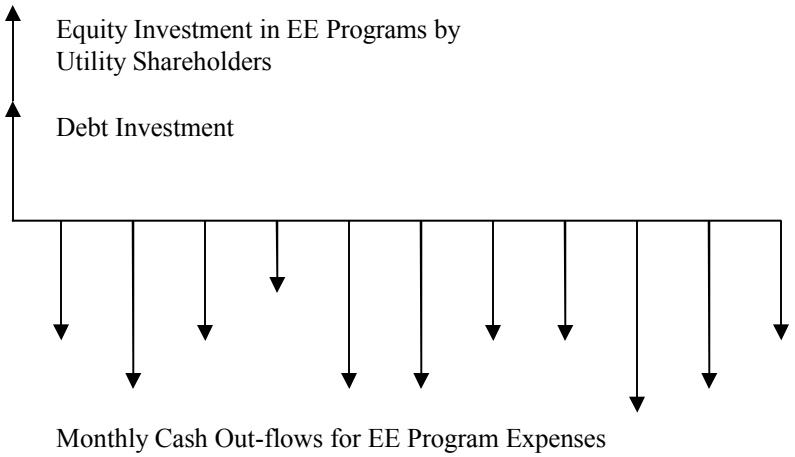
[36] Sempra Utilities Operating Revenues divided by Total Operating revenues, Sempra Energy annual report, p. 43.

Figure 6 –Cash Flow Diagram of Ratepayer Funded EE Programs



While inflows don't exactly match outflows, this funding mechanism provides a constant income stream. This can be contrasted with the situation if utilities funded the programs, in which case they would need to secure capital, incur risk in doing so, and should right fully receive a return on the investment (similar to the incentive proposal of NRDC):

Figure 7 –Cash Flow Diagram of IOU Funded EE Programs



It is crucial in this discussion to differentiate between **current ratepayer funded** programs, and **hypothetical shareholder funded** programs to be discussed in Section IV.

C. SSE is not required for other energy policy measures. Allowing it for EE will sent a bad precedence

Utilities generate shareholder earnings primarily through equity investments in capital projects such as power plants and poles. Their investment opportunities can be, and have been changed over time due to PURPA, Direct Access, or load lost to municipal agencies and even the present day hybrid market. They do not earn a rate of return on purchased power agreements (PPA) or fuel expenses.[37] Future regulatory measures to comply with AB 32 will likely reduce the need for traditional power plants, as will community choice access (CCA), demand response (DR), and distributed generation (DG) programs.

The Commission is not required to compensate the utilities for earning forgone due to changes in regulations or markets, they are only required to provide reasonable returns where IOUs make investments to fulfill their obligation to serve their customers.[38] Establishing SSE as the basis for EE incentives would be poor public policy, and inconsistent with California's efforts to increase energy efficiency and reduce greenhouse gas emissions.

D. SSE is only an issue when IOUs administer EE programs, but it does not apply to independent administrators.

D.05-01-055 carefully considered the merits of different parties in the role of EE program administrator before granting this role to the IOUs. While California has opted to allow utilities to administer energy efficiency programs, there is evidence

[37] Incentives are offered to all IOUs for gas procurement, which are capped at 1.5% of the actual gas commodity cost. Decisions D.93-06-092, D.94-03-076, D.97-08-055 adopted the incentive mechanisms for SDG&E, SCG, and PG&E, respectively.

[38] Public Utilities' Code Section 451; see D.05-12-043, p. 24 (a public utility is entitled to earn a return upon the value of its property employed for the convenience of the public).

that independent program administration in other states is successful. Vermont, which has the most aggressive EE program in the US on a per capita basis,[39] has both independent administration and performance incentives. Oregon, which ranks 6th in this survey, and New York also have independent administration. Independent administrators lose nothing by running these EE programs, since are not "losing" the opportunity to invest in supply side resources, and foregoing the allowed ROE. If in fact it is necessary to provide incentives to the utilities at the levels they request, then the Commission should consider revisiting the current administrative structure.

E. SSE leads to excessive payments to IOUs

If the Commission adopts incentives as proposed by IOUs, annual payments for 100% of goals could be as high as $187 million or more than 28% of program costs.[40] If the utilities reach their maximum incentive levels, reach, they could earn over $290 million or 44% of program costs.[41]

Historic data from California also demonstrates that this level is excessive. Before the elimination of EE shareholder incentives beginning with Program Year (PY) 2002,[42] the Commission concluded that an EE shareholder performance incentive for PY2000 and PY2001 capped at 7% of the program budget provided sufficient incentive to the utilities to achieve the Commission goals.[43] DRA previously analyzed the savings achievements, included here as Attachment 3, and found that the utilities delivered superior results under an incentive mechanism capped at 7% of program funding. There is no justification for higher incentives rates when outstanding performance can be provided at lower rates.

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[39] Table 10, Attachment 2.

[40] March 26, 2007 DRA comments, Table 2, PG&E earnings at 100% of savings goals.

[41] Ibid., Sempra earnings at 140% of savings goals.

[42] Policy manual from D.01-11-066, p. 29.

[43] D.00-05-019 p.18. Note that the 7% incentive cap included three types of milestones (energy savings with specific kWh, MW and therm targets assigned to each sector; market effects; and performance adders for non-resource programs.)

IV. Correct Application of SSEF Model.

DRA has consistently opposed using SSEF as a basis for EE incentives when EE programs are funded by ratepayers, as described in Section III above. As explained in the concurrently served testimony of Terry Murry, supply-side equivalence can be achieved at much lower levels than are being requested by the IOUs. DRA discusses additional specific issues with the model in the sections that follow.

A. PG&E's SSEF model as a basis for SHAREHOLDER funded Electricity Efficiency programs

Ratepayers are the ultimate source of all IOU projects, both supply side and demand side management, (DSM), including energy efficiency. The issue of ratepayer funding vs. shareholder funding of EE programs is a matter of time and risk: ratepayer funding provides a steady stream of cash flow required by the project for its entire life, where as shareholder funding requires securing all required capital in advance, which is **might** be returned with interest over time. The facts that shareholders might not earn their required rate of return, and might even encounter a capital loss, are factors that the Commission considers in setting the ROE

EE programs for 2006-2008 are funded by ratepayers. For the 2009-11 program cycle, a recent staff proposal[44] and subsequent comments[45] revealed no intention by either Commission staff or the utilities to switch to shareholder funding. However, DRA has included comments on PG&E's SSEF model[46] for use in with shareholder funded electricity efficiency programs in the event that shareholder

[44] CPUC Staff Proposal for 2009-2011 Energy Efficiency Portfolio Development and Long-Term Efficiency Goals Update Process February 16, 2007, included with ALJ Malcolm Notice of Prehearing Conference, R.06-04-010, February 16, 2007.

[45] Comments submitted by SCG, SDG&E, SCE, and PG&E in R.06-04-010, March 16, 2007.

[46] Excel file "Attach A 9-1-06 Revision of CEE Incentive Ana." released to the R.06-04-010 service list on March 28, 2007.

funding of energy efficiency occurs in the future. Discussion of its applicability to gas utilities, which do not invest in generation assets[47] was discussed previously.

PG&E's model is complex and although DRA feels that this model is generally accurate and applicable to shareholder funded investments in EE, the following issues should not be construed as all-inclusive. Comments included in Attachment 4 fall into two categories: technical or methodological concerns, and variable inputs subject to change or subjectivity. The former category includes two calculation errors which inflate forgone earnings by up to 45%, and which should be addressed and resolved before the model is used as a basis for incentives. Other comments address input variables which are subject to change over time and may vary by utility. DRA does not suggest particular values at this time, since DRA recommends against using this model for the current program, but instead suggests which variables should be updated and debated at such time that shareholder funded incentives are proposed.

DRA recommends that if shareholder funded incentives are desired, the actual incentive rate should be established as part of the GRC process. Unadjusted SSEF models yield such high incentive rates, and potential incentive payments, that the use of the model must be based upon the most current and accurate data such as capital structure, build to buy ratios, capital costs, tax rates, reserve margin, load shapes,[48] etc. This would entail extra ongoing effort since the resulting rate would vary by year, and utility, but small changes in any number of these input variables could result in $10s, if not $100s of millions of dollars in extra incentives. Many other states with incentives set incentives that vary in this manner.

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[47] Sempra energy has LNG operations which are not part of the regulated utilities business unit.

[48] SSEF earning calculations are based in large part on savings goals in terms of demand or MW rather than energy or MWh. MW savings are calculated by the E3 calculators using load factors for each measure and where it is installed. This data could be used to improve MW figures used in SSEF calculations, but current load shapes have known inaccuracies. The Load Shape Initiative, part of the 2007 DEER Update, could yield much more accurate basis for SSEF calculations.

B. PG&E's SSEF model should not be used for Natural Gas Efficiency programs

PG&E's SSEF model as provided in Attachment 3 to PG&E's March 15, 2007 yielded an SSEF figure of $224.2 million or 20.2% of Net Benefits. This total amount consisted of 64% from generation, 21% from T&D, and 15% from debt equivalence for PPAs.[49] Gas utilities do not invest in the generation of gas, so the majority of SSEF calculated by PG&E's model does not apply, although storage facility investments must be considered.

T&D costs based on transmission, primary, and secondary voltages are also clearly not applicable. T&D calculations in PG&E's SSEF model need to be modified for the gas T&D system. Debt equivalence is also not an issue since procurement and capacity contracts are too short in duration to impact ratios a utility's credit rating.[50]

PG&E's model was not designed to calculate SSEF for gas utilities and shouldn't be used for setting incentives for gas utilities. SSEF for gas utilities would occur at a much lower cost than for electric utilities, considering that 64% of SSEF in PG&E's model is from generation, which is not a factor for gas utilities. DRA recommends that the Managerial Bonus model be used for gas utilities rather than asking the gas utilities to create a new SSEF model.

V. Conclusion

The Commission should continue California's leadership in energy efficiency by adopting incentives designed to motivate utilities, without wasting money that could otherwise be spent on energy efficiency programs. There is no sound basis for using supply side equivalence as the bench market for energy efficiency incentives. Instead, the Commission should adopt DRA's Managerial Bonus model, which would provide incentives along the lines of those that mutual fund managers earn for

[49] Refer to Overall Summary Worksheet in Attachment 3.

[50] See e.g. PG&E's Annual CPIM Incentive Report, submitted April 5, 2007 in Application 96-08-043, Confidential Attachment, p. 2006-78.

managing other people's money. The managerial bonus model strikes the best balance between avoiding supply side investments in the short term and building energy efficiency programs in the long-term.

Attachment 1

I. Incentive Program data

DRA's first Data Request regarding these hearings requested the following information about their existing incentives programs:

"Describe any and all employee and management performance incentive programs at SDG&E and SoCalGas. For each program, describe the following:

1. Job classifications to which the incentive program applies.
2. Salary pool in to which the incentives apply.
3. Basis of incentives, i.e. what must be achieved to earn an incentive.
4. Full description of the incentive including form (cash, retirement matching, stock-options, etc.), level (either total incentive level in dollars or percentage of salary pool to which the incentives apply), and any other pertinent details.[1]

Initial responses and supplemental responses will be discussed for each IOU separately.

A) SCE Incentive Program

SCE 's initial response was to provide an exhibit titled "Human Resources And Pension & Benefits" from their 2006 General Rate Case (GRC) proceeding[2] which provided details about their "Results Sharing Program" (RCP) which provides performance based incentives to it's employees. Salary exempt employees can earn from 0-12% of annual pay based upon a combination of individual, business unit, and corporate measurable performance goals. Non-exempt employees can earn 0-6% of annual salary based upon similar goals. Target incentives for theses two classes of employees are 6% and 3% respectively. This exhibit mentions a Management Incentive Program (MIP), a Major Customer Division (MCD) Incentive Compensation Plan, and an Executive Incentive Compensation Plan (EIP), but detailed compensation levels were not included.[3] The response to a second DR indicated that the MCD program was discontinued in 2005, and provided actual 2006 MIIP payouts of 15.7% for "Tier 2" managers, and 21.0% for "Tier 1" managers rather than a range of incentive levels or targets.[4] SCE's responses provided no indication that long-term incentives were offered to employees, even though stock options were expressly mentioned in the original data request.

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[1] DRA Data Requests dated April 2, 2007: R.06-04-010-Phase 1-PGE-TCR1; R.06-04-010-Phase 1-SCE-TCR1; R.06-04-010-Phase 1-SDGE-TCR1.

[2] SCE 2006 GRC, Exhibit SCE–6, Vol. 1, Ch. III-IV.

[3] Ibid, page 67.

[4] Response to Data Request, dated April 14, 2007.

B) SoCalGas and SDG&E Incentive Program

SoCalGas and SDG&E employees are able to participate in Sempra's Incentive Compensation Plan (ICP). Sempra's response to the original data request included a copy of this plan, which is "for non-union employees below the Vice President level."[5] Like SCE's plan, ICP provides annual cash bonuses when financial, operating, and individual goals are met or exceeded. Incentive levels are defined as follows:

Table 1 – Sempra ICP Incentive Rates

MAJOR EMPLOYEE GROUPS	Minimum	Target	Maximum
DIRECTOR	0%	25.00%	37.50%
MANAGER – (function)	0%	20.00%	30.00%
MANAGEMENT	0%	15.00%	22.50%
ASSOCIATE	0%	10.00%	15.00%

As with SCE, long-term incentives were not mentioned in the response to DRA's data request.

C) PG&E Incentive Program

PG&E response to DRA's initial DR provided an excerpt from a recent GRC filing[6], which offered a qualitative description of a Short Term Incentive Program (STIP) and a Long-Term Incentive Plan (LTIP), but no specific incentive rates or targets. Detailed incentive rates were provided in response to a supplemental request.[7] The STIP program is similar to the programs mentioned above and has the following incentive levels:

Table 2 – PG&E STIP Incentive Rates

MAJOR EMPLOYEE GROUPS	Minimum	Target	Maximum*
DIRECTOR	0%	20%	40%
MANAGER	0%	15%	30%
SUPERVISOR	0%	10%	20%
PROFESSIONAL	0%	8%	16%
ADMIN. AND TECHNICAL	0%	6%	12%
BARGINING UNIT	0%	0%	0%

Data for the LTIP program is considered confidential and is not included in this testimony.

[5] Response to Data Request, dated April 14, 2007.

[6] PG&E's 2007 GRC testimony, Phase 1, Exhibit PG&E-17, Chapter 3.

[7] Response to Data Request, dated April 9, 2007.

II. Compensation Survey Data

The most recent compensation surveys for each utility were obtained through the data request process:

SCE - Hewitt Total Compensation Study Report, October 2004[8]
PG&E - Towers Perrin Total Compensation Study Report, September, 2005
SoCalGas - Hewitt Total Compensation Study Report, July 21, 2006
SDG&E - Hewitt Total Compensation Study Report, July 21, 2006

Tables in Appendix D of each IOU's survey report both IOU compensation data and comparable market data.

A) SCE Summary

Table 3 - SCE Competitive Analysis by Average Total Compensation Dollars ($000s)
Hewitt Total Compensation Study Report, October 2004, Table D-1

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	1,862	23.1%	$61.36	$65.27	**6.4%**		$57.12	$58.97	**3.2%**
Clerical	1,450	18.0%	$40.20	$41.88	**4.2%**		$43.23	$45.64	**5.6%**
Professional/ Technical	3,257	40.4%	$79.09	$86.71	**9.6%**		$80.07	$88.81	**10.9%**
Manager/ Supervisor	1,480	18.4%	$98.45	$112.65	**14.4%**	14.3%	$96.05	$112.27	**16.9%**
Executive	9	0.1%	$267.53	$468.25	**75.0%**	0.5%	$260.21	$418.89	**61.0%**
Total	8,058					**14.8%**			

Notes:
Incumbent data as of December 31, 2003
Payroll dollars include base pay as of December 31, 2003, and annual incentives paid in 2003 for 2002 performance

[8] SCE is currently working with DRA to prepare the next update to the salary survey, but it will not be released before testimony is required.

B) PG&E Summary

Table 4 - PG&E Competitive Summary by Average Total Compensation Dollars ($000s)
Towers Perrin Total Compensation Study Report, September, 2005, Table D-1

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	2,484	23.2%	$66.61	$66.62	**0.0%**		$60.55	$62.44	**3.1%**
Clerical	4,864	45.4%	$51.00	$51.51	**1.0%**		$42.62	$44.16	**3.6%**
Professional/ Technical	2,404	22.4%	$81.11	$91.10	**12.3%**		$85.75	$94.88	**10.6%**
Manager/ Supervisor	952	8.9%	$91.79	$107.63	**17.3%**	16.9%	$95.90	$108.69	**13.3%**
Executive	20	0.2%	$336.21	$648.00	**92.7%**	1.9%	$336.88	$606.30	**80.0%**
Total	10,724					**18.8%**			

Notes:
Population of PG&E benchmark jobs as of December 31, 2004
(includes PG&E Company and PG&E Corporation employees)
Total Cash Comp. defined as base salary plus short-term (annual) incentives paid in 2004

C) SDG&E and SoCalGas Summary

The Hewitt reports for SDG&E and SoCalGas includes two tables in Appendix D to evaluate compensation both with and without corporate staff. This is required since these utilities provide less than approximately 50% of Sempra's corporate income.[9] SDG&E and SoCalGas both utilize corporate resources from Sempra Energy Corporation Center (Sempra). The Hewitt team allocated 24.7% of corporate personal to SDG&E and 25.9% to SCG, and the balance to other Sempra companies. DRA analyzed the data both with and without this allocation.

[9] SDG&E and SCG provided 41% of consolidated net income in 2006, and 51% and 48% in 2005 and 2004 respectively, from 2006 Sempra Annual Report.

SoCalGas

Table 5 - SoCalGas Study Summary (Excluding Corporate Center)
Average Compensation Dollars ($000s)
Hewitt Total Compensation Study Report, July 21, 2006, Table D-1

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	2,352	47.7%	$57.50	$57.50	**0.0%**		$55.60	$56.30	**1.3%**
Clerical	1,871	38.0%	$47.40	$47.60	**0.4%**		$46.00	$47.30	**2.8%**
Professional/ Technical	282	5.7%	$71.30	$86.00	**20.6%**		$74.20	$79.10	**6.6%**
Manager/ Supervisor	421	8.5%	$75.30	$91.30	**21.2%**	21.1%	$81.70	$88.50	**8.3%**
Executive	3	0.1%	$316.10	$604.40	**91.2%**	0.6%	$288.70	$486.30	**68.4%**
Total	4929					**21.7%**			

SoCalGas's population as of June 30, 2005, including distribution of Corporate Center employees.
Payroll dollars include base pay as of June 30, 2005, annual incentives, paid in 2005 for 2004 performance.

Table 6 - SoCalGas Study Summary (Including Corporate Center)
Average Compensation Dollars ($000s)
Hewitt Total Compensation Study Report, July 21, 2006, Table D-2

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	2,352	47.1%	$57.5	$57.5	**0.0%**		$55.6	$56.3	**1.3%**
Clerical	1,889	37.8%	$49.0	$49.8	**1.6%**		$47.5	$49.1	**3.4%**
Professional/ Technical	320	6.4%	$75.1	$91.4	**21.7%**		$77.3	$82.9	**7.2%**
Manager/ Supervisor	431	8.6%	$76.9	$93.5	**21.6%**	21.3%	$83.0	$90.3	**8.8%**
Executive	6	0.1%	$310.4	$604.4	**94.7%**	1.3%	$275.7	$448.0	**62.5%**
Total	4998					**22.6%**			

SoCalGas's population as of June 30, 2005, including distribution of Corporate Center employees.
Payroll dollars include base pay as of June 30, 2005, annual incentives, paid in 2005 for 2004 performance.

SDG&E

Table 7- SDG&E Study Summary (Excluding Corporate Center)
Average Compensation Dollars ($000s)
Hewitt Total Compensation Study Report, July 21, 2006, Table D-1

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	750	29.8%	$59.9	$62.7	**4.7%**		$60.5	$62.1	**2.6%**
Clerical	647	25.7%	$38.2	$42.3	**10.7%**		$46.5	$47.8	**2.8%**
Professional/ Technical	847	33.6%	$72.9	$88.2	**21.0%**		$80.0	$84.4	**5.5%**
Manager/ Supervisor	268	10.6%	$94.4	$115.8	**22.7%**	22.1%	$98.3	$109.2	**11.1%**
Executive	7	0.3%	$215.2	$359.5	**67.1%**	1.7%	$219.6	$336.3	**53.1%**
Total	2519					**23.8%**			

SDG&E's population as of June 30, 2005, including distribution of Corporate Center employees.
Payroll dollars include base pay as of June 30, 2005, annual incentives, paid in 2005 for 2004 performance.

Table 8 - SDG&E Study Summary (Including Corporate Center)
Average Compensation Dollars ($000s)
Hewitt Total Compensation Study Report, July 21, 2006, Table D-2

	Company Data						Market Data		
Job Category	Incumbents	% of Staff	Base Pay	Total Cash Comp.	% Cash Bonus	**Weighted average**	Base Pay	Total Cash Comp.	% Cash Bonus
Physical/ Technical	750	29.0%	$59.9	$62.7	**4.7%**		$60.5	$62.1	**2.6%**
Clerical	664	25.7%	$38.5	$42.7	**10.9%**		$46.7	$48.1	**3.0%**
Professional/ Technical	884	34.2%	$74.1	$89.9	**21.3%**		$80.8	$85.4	**5.7%**
Manager/ Supervisor	278	10.8%	$95.8	$118.0	**23.2%**	22.4%	$99.5	$110.9	**11.5%**
Executive	10	0.4%	$237.4	$423.9	**78.6%**	2.7%	$228.6	$352.2	**54.1%**
Total	2586					**25.1%**			

SDG&E's population as of June 30, 2005, including distribution of Corporate Center employees.
Payroll dollars include base pay as of June 30, 2005, annual incentives, paid in 2005 for 2004 performance.

Attachment 2 – Other State EE Data

Table 9 - EE Incentives in United States as of April 2007

	Current Program adopted	Incentive at 100% of goals as % of **Program Net Benefits**	Incentive at 100% of goals as % of **Program Costs**	Incentive Cap as % of Program Costs	2004 EE Budget ($1000)	Updated Budget ($1,000)	Incentive Payment at 100% of goals($1000)	Maximum Payment ($1000)
Minnesota	1999	1.0%	3.3%	30.0%	$55,784	$99,133	$3,271	$29,740
Rhode Island	1997	NA	4.4%	5.3%	$13,990	$27,500	$1,210	$1,458
Connecticut	NA	NA	5.0%	8.0%	$58,098	$58,098	$2,905	$4,648
Vermont	2000	NA	5.0%	5.8%	$14,000	$22,167	$1,108	$1,293
New Hampshire	2000	NA	8.0%	12.0%	$15,120	$15,120	$1,210	$1,814
Massachusetts	1997	NA	8.25%	9.0%	$133,326	$125,000	$10,313	$11,250
Wisconsin	1991	NA	12.7%	NA	$53,734	$16,300	$2,077	NA
Nevada	NA	NA	15.3%	NA	$8,473	$8,473	$1,292	NA
Arizona	2005	10%	NA	10.0%	$4,000	$16,000	NA	$1,600
California 2004	NA	NA	NA	NA	$380,009	NA	NA	NA
California Proposals								
TURN	NA	2%	2.7%	5%		$666,667	$17,927	$33,333
CEC	NA	2%	2.7%	5%		$666,667	$17,927	$33,333
DRA	NA	3%	4.0%	8%		$666,667	$26,890	$53,333
NRDC	NA	12%	15.6%	30%		$666,667	$103,760	$200,000
SEMPRA	NA	15%	21.4%	44%		$666,667	$142,650	$292,667
SCE	NA	20%	27.3%	36%		$666,667	$181,933	$238,000
PGE	NA	20%	28.1%	35%		$666,667	$187,267	$236,333

General Notes

All incentive rates are pre-tax.
CA Incentives as a % of program costs are(incentive based upon PEB)*(PEB@ 100% from Table 8B/program budget).
CA Incentive cap is ratio of capped earnings from Table 8B, divided by program budget.

State Specific Notes

+AZ incentive data from conversations with ACC staff, April 2007. Note that program costs include incentive payments. Budget data for 2005-2007 program.
+CA 2004 data from ACEEE Report # U061, October 2006.
+CT incentive data from conversations with CTDPUC staff, April 2007. No updated budget data.
+MA incentive data from conversations with MA Division of Electricity Resource staff, April 2007. Budget data from 2004 included carryover from previous years, updated budget data approximate.
+MN incentive data from conversations with MN Dept. of Commerce staff, April 2007. Incentive rate varies year to year and by utility, but is generally <1% at 100% of goals in terms of PEB, < 3.3% of budget. Updated budget data from 2005.
+NV data from ACEEE report U061, Oct. 2006, except budget, which is from ACEEE scorecard for 2004. Incentive rate was given as 10.25% ROE + 5% and repeated here as a pre-tax rate, by assuming 40% tax rate and 60% equity.
+RI incentive data from conversations with RIPUC staff, April 2007. Updated budget data for 2007 electric, and July 1, 2007-2008 for gas.
+New Hampshire PUC could not be reached for updated data. All data from ACEEE Report # U061, October 2006.
+VT incentive data from conversations with VTPSB staff, April 2007. VT utility is non-profit, so incentive level of 3% and cap of 3.5% were grossed up assuming a 40% tax rate. Incentive level cap was raised from 2% to 3.5% in 2006. Updated budget data for 2006-2008.
+WI incentive data from conversations with WIPUC staff, April 2007. Only one utility in Wisconsin, WL&P, currently offers incentives, so only WL&P budget is shown as updated budget. Incentive rate is the WCC, shown here on a pre-tax basis. EE budget and WCC applicable as of July 1, 2007.

Table 10 - 2004 Energy Efficiency Program Spending and Savings

	Energy efficiency spending	Energy efficiency spending	Energy efficiency spending	Cumulative Savings	Cumulative Savings
	$1,000	per capita	% of Revenues	GWh	% Sales
Alabama	438	$0.10	0.00%	382	0.40%
Alaska	103	$0.16	0.00%	3	0.10%
Arizona	4,000	$0.70	0.10%	106	0.20%
Arkansas	231	$0.08	0.00%	32	0.10%
California	380,009	$10.60	1.30%	19,590	7.80%
Colorado	13,715	$2.98	0.40%	687	1.50%
Connecticut	58,098	$16.60	1.80%	2,651	8.30%
Delaware	NA	NA	NA	0	0.00%
Dist. of Columbia	2,200	$3.97	0.30%	251	2.30%
Florida	72,014	$4.14	0.40%	5,951	2.70%
Georgia	1,356	$0.15	0.00%	291	0.20%
Hawaii	9,190	$7.28	0.50%	85	0.80%
Idaho	7,023	$5.03	0.60%	813	3.70%
Illinois	3,000	$0.24	0.00%	130	0.10%
Indiana	2,062	$0.33	0.00%	812	0.80%
Iowa	28,833	$9.76	1.10%	1,310	3.20%
Kansas	0	$0.00	0.00%	0	0.00%
Kentucky	4,146	$1.00	0.10%	161	0.20%
Louisiana	324	$0.07	0.00%	25	0.00%
Maine	13,118	$9.98	1.10%	33	0.30%
Maryland	50	$0.01	0.00%	2,221	3.30%
Massachusetts	133,326	$20.81	2.20%	3,514	6.30%
Michigan	8,000	$0.79	0.10%	1	0.00%
Minnesota	55,784	$10.95	1.40%	4,791	7.60%
Mississippi	497	$0.17	0.00%	83	0.20%
Missouri	928	$0.16	0.00%	22	0.00%
Montana	8,002	$8.63	1.00%	560	4.30%
Nebraska	4,348	$2.49	0.30%	56	0.20%
Nevada	8,473	$3.63	0.30%	75	0.20%
New Hampshire	15,120	$11.64	1.20%	340	3.10%
New Jersey	92,753	$10.68	1.20%	3,234	4.20%
New Mexico	2,000	$1.05	0.10%	26	0.10%
New York	147,193	$7.63	0.80%	4,772	3.40%
North Carolina	3,722	$0.44	0.00%	12	0.00%
North Dakota	465	$0.73	0.10%	0	0.00%
Ohio	16,195	$1.41	0.20%	394	0.30%
Oklahoma	316	$0.09	0.00%	91	0.20%
Oregon	62,888	$17.51	2.20%	2,940	6.40%
Pennsylvania	3,446	$0.28	0.00%	16	0.00%
Rhode Island	13,990	$12.95	1.60%	492	6.20%
South Carolina	4,920	$1.17	0.10%	107	0.10%
South Dakota	542	$0.70	0.10%	0	0.00%
Tennessee	10,937	$1.86	0.20%	441	0.40%
Texas	80,000	$3.56	0.30%	6,229	1.90%
Utah	16,450	$6.80	1.20%	762	3.10%
Vermont	14,000	$22.54	2.20%	400	7.10%
Virginia	0	$0.00	0.00%	166	0.20%
Washington	88,522	$14.26	1.90%	5,974	7.50%
West Virginia	992	$0.55	0.10%	23	0.10%
Wisconsin	53,734	$9.76	1.10%	3,233	4.80%
Wyoming	0	$0.00	0.00%	0	0.00%
U.S. total/average	1,447,453	$4.93	0.50%	74,286	2.10%

2006 ACEEE Summer Study on Energy Efficiency in Buildings
A Nationwide Assessment of Utility Sector Energy Efficiency Spending,
Savings, and Integration with Utility System Resource Acquisition
Dan York and Martin Kushler, American Council for an Energy-Efficient Economy

Attachment 3 – EE Program Year 2001 Data

Table 11 - EE Program Year 2001 Data

	GWh target @100% earnings	Achieved GWh	MW target @100% earnings	Achieved MW	Mmth target @100% earnings	Achieved Mmth
PG&E						
Residential	145.2	223.6	55.3	82.5	3.9	14.9
Non-residential	369.9	363.6	60.3	66.9	4.9	6.3
New Construction	44	49.1	11.2	21.6	0.3	0.4
Total	559.1	636.3	126.7	171.0	9.1	21.6
SCE						
Residential	104.3	119.7	39.7	51.2	na	na
Non-residential	231.7	265.9	37.8	50.5	na	na
New Construction	52.6	68.7	13.4	19.4	na	na
Total	388.6	454.3	90.8	121.2	na	na
SDG&E						
Residential	22.3	44.2	8.5	10.7	0.80	1.445
Non-residential	56.0	70.8	7.3	12.8	0.30	0.72
New Construction	23.0	34.8	5.8	7.7	0.20	0.75
Total	101.2	149.8	23.4	31.2	1.30	2.91
SoCalGas						
Residential	5.7	1.2	3.1	1.4	2.2	1.7
Non-residential	2.9	3.7	0.7	1.0	5.3	6.5
New Construction	13.0	8.8	4.6	6.0	0.4	0.4
Total	21.7	13.7	8.4	8.4	7.9	8.6

Attachment 4 – PG&E SSEF Model Issues

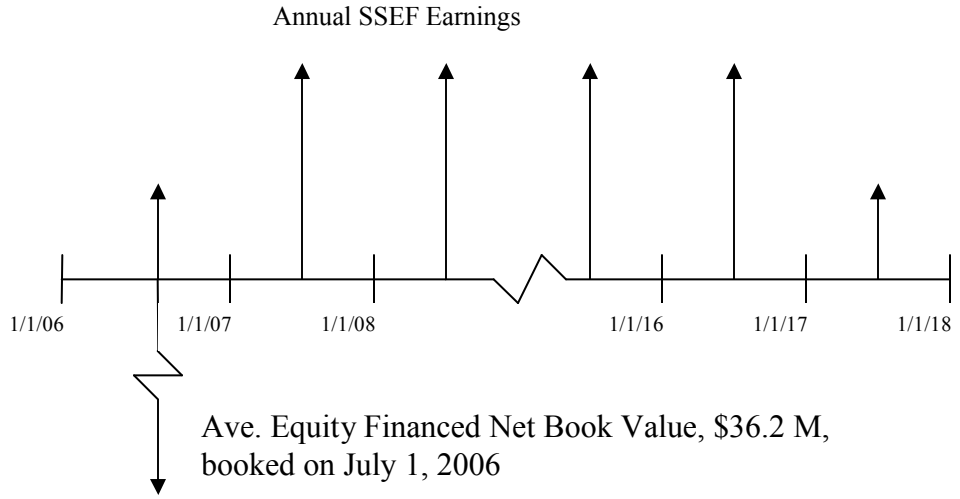
Questions Regarding Methodology

1) **MW used to determine Annual Capital Expenditures for generation** – Row 60 of the "Gen Capacity" worksheet shows the annual capital expenditures, which are the basis of the SSEF calculations. DRA added a calculation in Row 61 in the attached Table 14, to show that PG&E's SSEF calculation assumes 944 MW are required in lieu of the 2006-2008 EE program. DRA believes this number is too high based on PG&E's calculations of:

   a) MW equivalent of energy saved by EE programs, 483 MW, cell E46
   b) MW of capacity saved by EE programs, 747 MW, cell E50

   DRA believes 747 MW is a more accurate indication of the supply side resources which would be required if EE programs did not exist, and that PG&E's calculations based on 944 MW lead to an SSEF value 26% too high. DRA attempted to resolve this issue with PG&E, but PG&E terminated communications stating that "[a]nything further on this score would be burdensome." DRA recommends that PG&E provide an explanation and substantiation for the use of 944 MW, to the full satisfaction of Commission Staff.

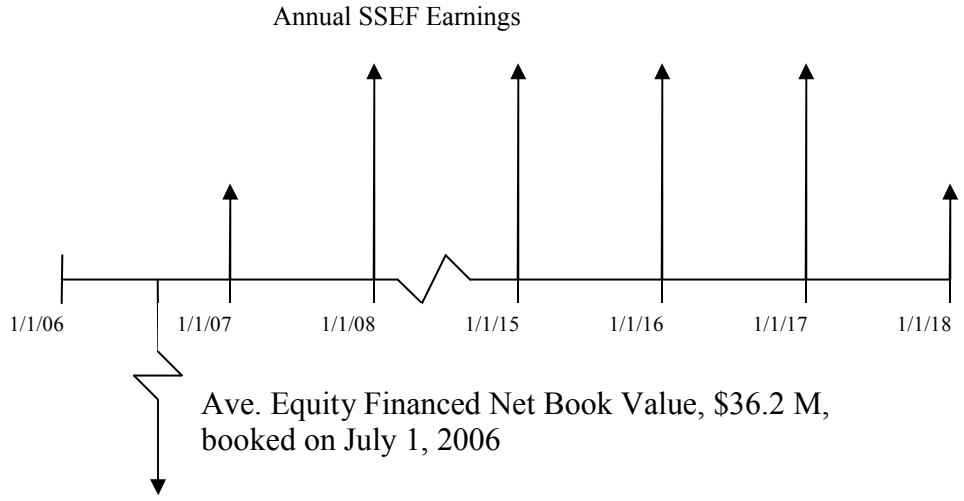
2) **NPV timing** – DRA's previous comments[1] indicated the timing of cash flows in the SSEF calculation impacts the derived sharing rate. DRA's original estimation of a 5.3% error was increased to 9.2% on a before tax basis. Discussions with PG&E indicated that the following timing is assumed in their model:[2]



[1] March 26, 2007DRA comments in R.06-04-010, p.13.

[2] The following discussion is based on the 2006 program term and for simplicity, SSEF includes similar calculations for 2007 and 2008, which are summed to obtain total earnings.

This indicates that from the shareholder perspective, earnings are generated beginning the same day the supply-side asset is placed in service. DRA believes a more accurate treatment is illustrated as follows:

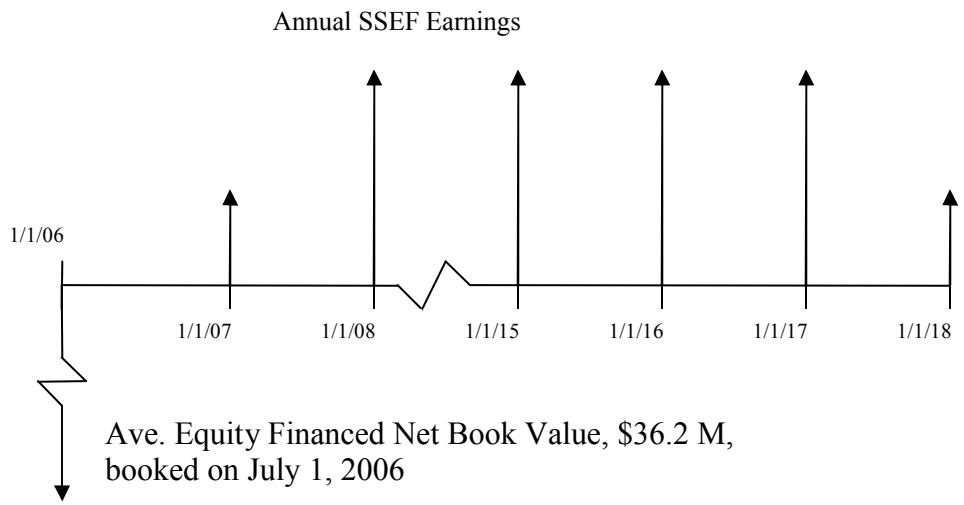


This shows earnings accruing to shareholders at the end of each fiscal year. Treating earnings this way when discounting them to present value decreases the calculated forgone earnings by (1+discount rate)^-1/2, or 9.2%, using PG&E's before tax discount rate of 19.15%.

3) **Calculation of the Sharing Rate** – PG&E divides calculated SSEF by the net benefits in the Overall Summary worksheet to calculate a sharing rate. For this calculation to be accurate, the valuation date of both numbers must be the same.[3] PG&E selects July 1, 2006 as the valuation date for SSEF, which is also the "present" in NPV calculations. The valuation date of the PEB calculation is not available, despite a specific request for this information.[4] If PEB were valued at the beginning of the 2006-2008 program cycle, SSEF should also be discounted to January 1, 2006:

[3] Since discounting reduces the values of earnings for each and every time period, discounting either SSEF or PEB over a shorter time period will increase that value relative to the other, changing the derived sharing rate.

[4] Supplemental Data Request dated April 13, 2007.



Treating earnings this way when discounting them to present value decreases the calculated forgone earnings by (1+discount rate) or PG&E's before tax discount rate of 19.15%.

Variable Inputs

1) Build to buy ratio - 50/50 split used by all IOUs based on PG&E's recent acquisition of some power plants. DRA attempts to get a more accurate ratio through the discovery process had limited success.[5] This ratio will certainly change with time and significantly impacts SSEF calculations.
2) Debt Equivalence rate – PGE uses 30% but the 20% would be more accurate. If the Commission adopts a model including imputed debt equivalence for PPAs, the latest rate from the cost of capital proceeding should be used.
3) Discount Rate – This rate should be based on the latest ROE figures for each IOU from the cost of capital proceeding. Actual tax rates must also be used for a before –tax treatment.
4) Time period of analysis – This depends on the mix of measures in each IOU's EE portfolio. Reponses to DRA data requests dated April 7, 2007 indicate that a shorter measure life was observed in 2006, due in part to the number of CFLs in each portfolio. Shorter measure life decreases SSEF, so the actual measure life should be used.
5) Generation and T&D Capital Costs– The latest Commission adopted figures should be used.
6) PEB – Since the sharing rate is obtained by dividing SSEF by PEB, an accurate PEB must be used. DRA recommends that PEB include incentives earnings.

[5] PG&E indicated historic ratios are not valid due to their restructuring and that they cannot predict the ratio in the future. SCE also indicated they could not predict this value. SDG&E currently purchases 71% of its power, but this will drop when the Palomar plant comes online.

Table 12 – PG&E MW used for SSEF Calculations

	B	C	D	E
26		**2006**	**2007**	**2008**
28	**Customer-Meter Level Energy Efficiency Program Savings (GWh):**			
29	CEE 2006 Programs	338.5	677.0	677.0
30	CEE 2007 Programs	0.0	562.5	1,125.0
31	CEE 2008 Programs	0.0	0.0	630.5
32	**Total**	338.5	1,239.5	2,432.5
34	**Customer-Meter Level Energy Efficiency Program Savings Grossed Up for Transmission and Distribution Voltage Level Line Losses (GWh):**			
37	CEE 2006 Programs	365.8	731.5	731.5
38	CEE 2007 Programs	0.0	607.8	1,215.6
39	CEE 2008 Programs	0.0	0.0	681.3
40	**Total**	365.8	1,339.4	2,628.5
42	**Equivalent Avoided CCGT Capacity plus 15% Reserve Margin(MW):**			
43	CEE 2006 Programs	106.7	106.7	106.7
44	CEE 2007 Programs		177.3	177.3
45	CEE 2008 Programs			198.8
46	**Total**	106.7	284.0	**482.8**
48	**Annual Customer Meter-Level Demand Reductions Achieved by CEE Programs (MW):**	127.0	346.0	601.0
50	**Annual Customer Meter-Level Demand Reductions Due to CEE Programs, Grossed Up for Transmission & Voltage Level Line Losses, plus 15% Reserve Margin (MW):**	157.8	430.0	**746.8**
52	**Required Additional CCGT Capacity Avoided Due to Loss- & Reserve-Adjusted Demand Reductions Achieved by CEE Programs, After Deducting Additional CCGT Capacity Avoided Due to MWh Reductions Due to EE Programs:**	51.1	145.9	264.1
54	**Installed Capital Cost of New CCGT ($/kW):**	$939	$958	$979
56	**Annual Capital Expenditures ($) for:**			
57	CCGT Capacity Investments Avoided Due to 2006 EE Programs	$148,149,651	$0	$0
58	CCGT Capacity Investments Avoided Due to 2007 EE Programs	$0	$309,825,867	$0
59	CCGT Capacity Investments Avoided Due to 2008 EE Programs	$0	$0	$452,907,367
60	**Total**	$148,149,651	$309,825,867	$452,907,367
61	**DRA ADDED LINE - Cummulative MW installed for supply side equivilence to EE programs**	158	481	**944**
	Row 61 formulae	=B57/B54/1000	=C58/C54/1000+B61	=D59/D54/1000+C61

ATTACHMENT 5 –
WITNESS CLASSIFICATION ROBERT C. THOMAS
STATEMENT OF QUALIFICATONS

OF THOMAS C. ROBERTS

Q1. Please state your name and business address.
A1. My name is Thomas C. Roberts. My business addresses 505 Van Ness Avenue, San Francisco, California 94102.

Q2. By whom are you employed and in what capacity?
Q2. The California Public Utilities Commission (CPUC) employs me as a Public Utility Regulatory Analyst in the Division of Ratepayer Advocates.

Q3. Please describe your educational background and professional experience.
A3. I received a B.S. in Mechanical Engineering from the California State Polytechnic University in Pomona. I also hold a Masters of Business Administration from the Claremont Graduate School. My professional experience includes nearly a decade with Boeing studying the impacts of acoustics and vibration on satellite launch vehicles and the International Space Station. I've also consulted with businesses within the jurisdiction of the SCAQMD regarding air pollution issues. I have been employed by the CPUC since November, 2006.

Q4. What is the purpose of your testimony?
A4. I am sponsoring testimony regarding DRA's Managerial Bonus model, and why supply side comparability is the wrong benchmark for energy efficiency, and issues regarding PG&E's Supply Side Earnings Foregone Model.

Q5. Does this complete your testimony?
A5. Yes, it does.